



TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
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Product Specifications Approval Sheet

Product Description: IF SAW Filter 53.76 MHz (SMD 13.3mmX6.5mm)

TST Parts No.:TB0948A

Customer Parts No.: _____

| |
|-----------------------------|
| Customer signature required |
| Company: _____ |
| Division: _____ |
| Approved by : _____ |
| Date: _____ |

Checked by: _____ V.J Fanchian 

Approved by: _____ Jun-Mao Chang 

Date: _____ 2022/04/14

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes.

| |
|------------------|
| TST DCC |
| Release document |



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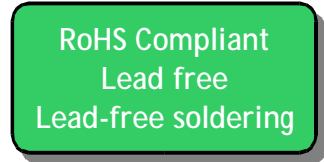
IF SAW Filter 53.76 MHz SMD 13.3mmX6.5mm

MODEL NO.: TB0948A

Rev. No.:2.0

A. MAXIMUM RATING:

1. Maximum Input Power: 10dBm
2. Operating Temperature: -20 °C ~ +85 °C
3. Storage Temperature: -40 °C ~ +85 °C
4. Moisture Sensitive Level (MSL): Level 1



Electrostatic Sensitive Device

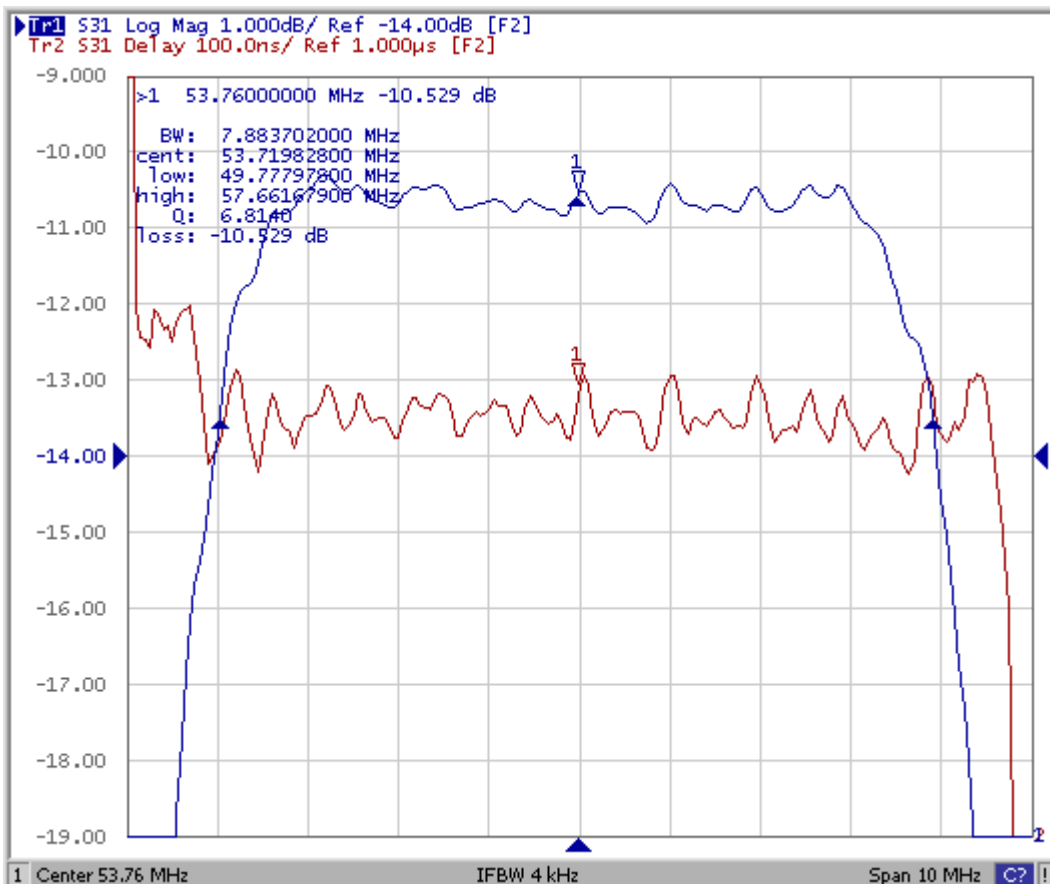
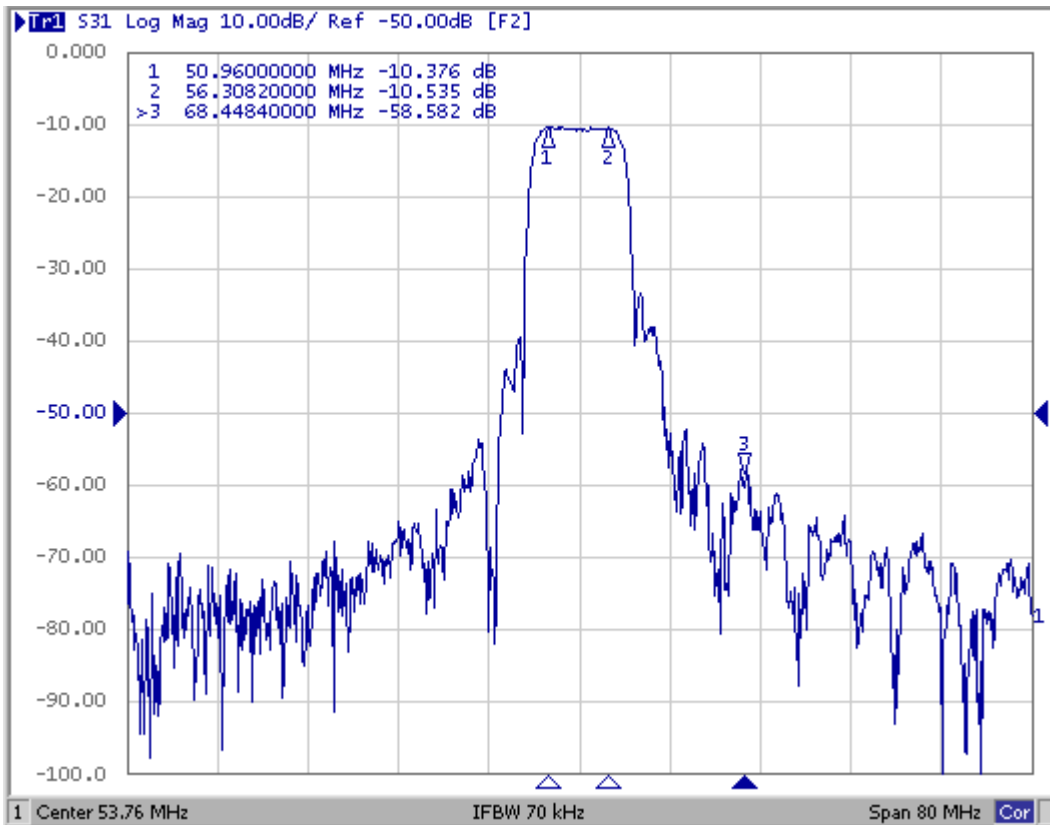
B. ELECTRICAL CHARACTERISTICS:

1. Ambient Temperature: 25 °

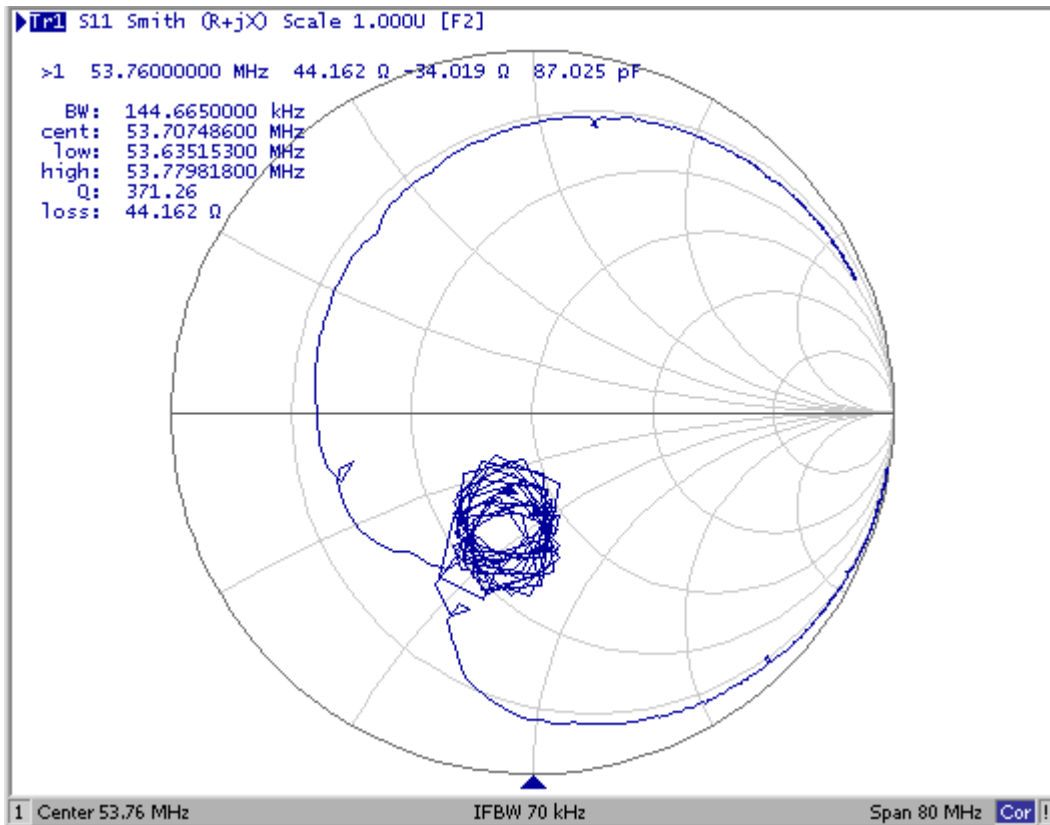
| Item | Unit | Min. | Type. | Max. |
|---|------|-------|-------|------|
| Center frequency, F_c | MHz | - | 53.76 | - |
| Insertion Loss, IL | dB | - | 10.3 | 11.0 |
| Pass band Ripple F_c±2.7 MHz | dB | - | 0.5 | 1.0 |
| Group Delay Variation F_c±2.7 MHz | nsec | | 90 | 120 |
| Phase Linearity within F_c±2.7 MHz | deg | | 3.5 | 6.0 |
| Relative attenuation | | | | |
| F_c-40 MHz ~ F_c-12 MHz | dB | 45 | 52 | - |
| F_c+12.0 MHz ~ F_c+500 MHz | dB | 45 | 48 | - |
| Return Loss within Pass band | dB | 6 | 6.5 | - |
| Max input power level | dBm | +10 | | |
| Input IP3 | dBm | +35 | +40 | |
| In/Output impedance | Ohm | 50/50 | | |

C. FREQUENCY CHARACTERISTICS :

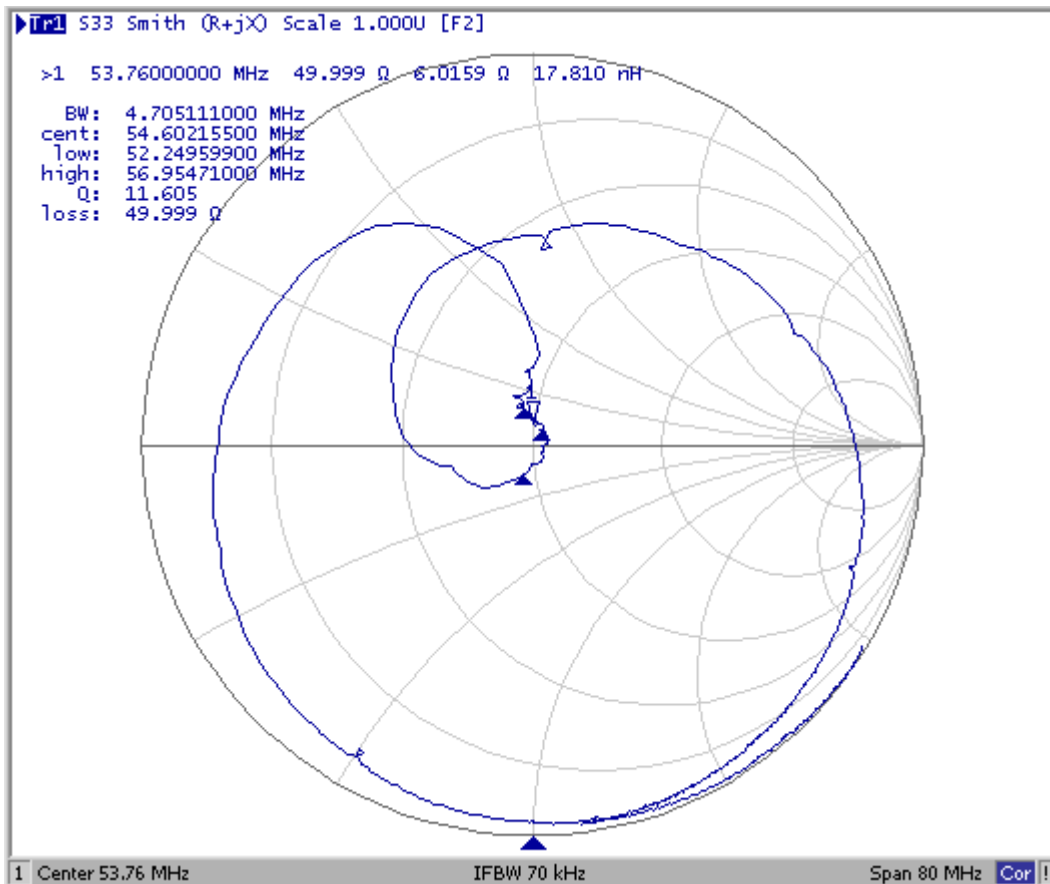
S11 Response:



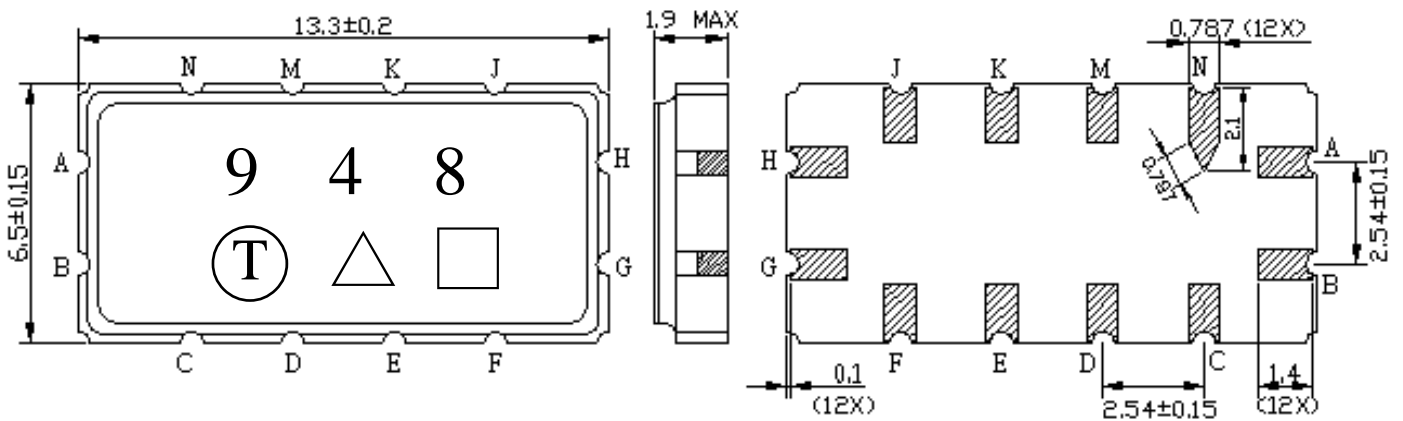
S11 Smith-Chart



S22 Smith-Chart



D. OUTLINE DRAWING:



Pin configuration

#A RF Input or balanced input+

#G RF Input ground or balanced input-

#B, C, D, E, F, H, J, K, M, N To be ground

□ : Week Code (Follow the table from planner each year)

△ : Product / Year Code

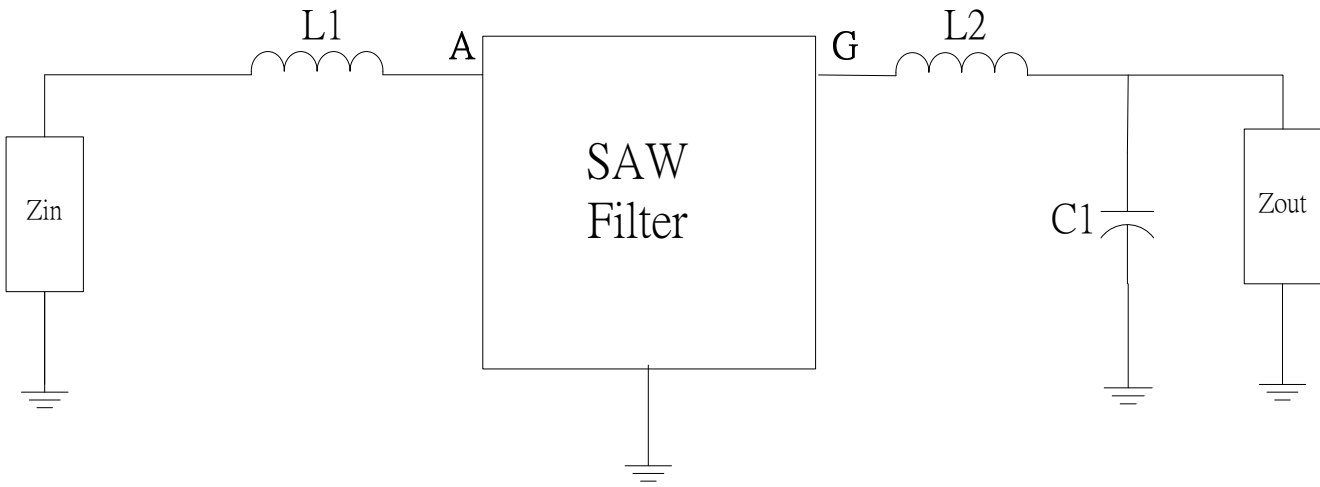
Product / Year Code- 4year cycle

| | | | | |
|--------------|--------------|--------------|--------------|--------------|
| Year | 2021 2025 | 2022 2026 | 2023 2027 | 2024 2028 |
| Product Code | B | b | <u>B</u> | <u>b</u> |

Week Code Table

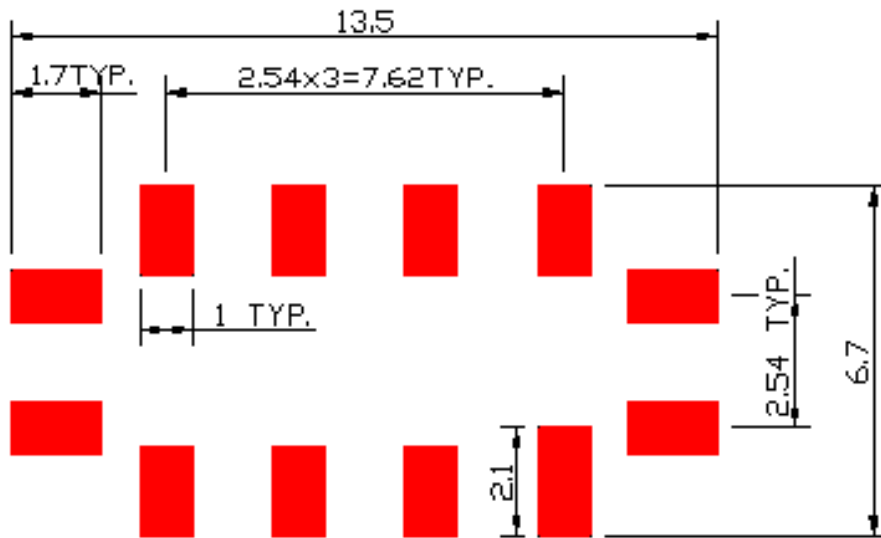
| | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| WK01 | WK02 | WK03 | WK04 | WK05 | WK06 | WK07 | WK08 | WK09 | WK10 | WK11 | WK12 | WK13 |
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| WK14 | WK15 | WK16 | WK17 | WK18 | WK19 | WK20 | WK21 | WK22 | WK23 | WK24 | WK25 | WK26 |
| N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| WK27 | WK28 | WK29 | WK30 | WK31 | WK32 | WK33 | WK34 | WK35 | WK36 | WK37 | WK38 | WK39 |
| a | b | c | d | e | f | g | h | i | j | k | l | m |
| WK40 | WK41 | WK42 | WK43 | WK44 | WK45 | WK46 | WK47 | WK48 | WK49 | WK50 | WK51 | WK52 |
| n | o | p | q | r | s | t | u | v | w | x | y | z |


E. MEASUREMENT CIRCUITS :



L1=470nH, L2=390nH, C1=39pF

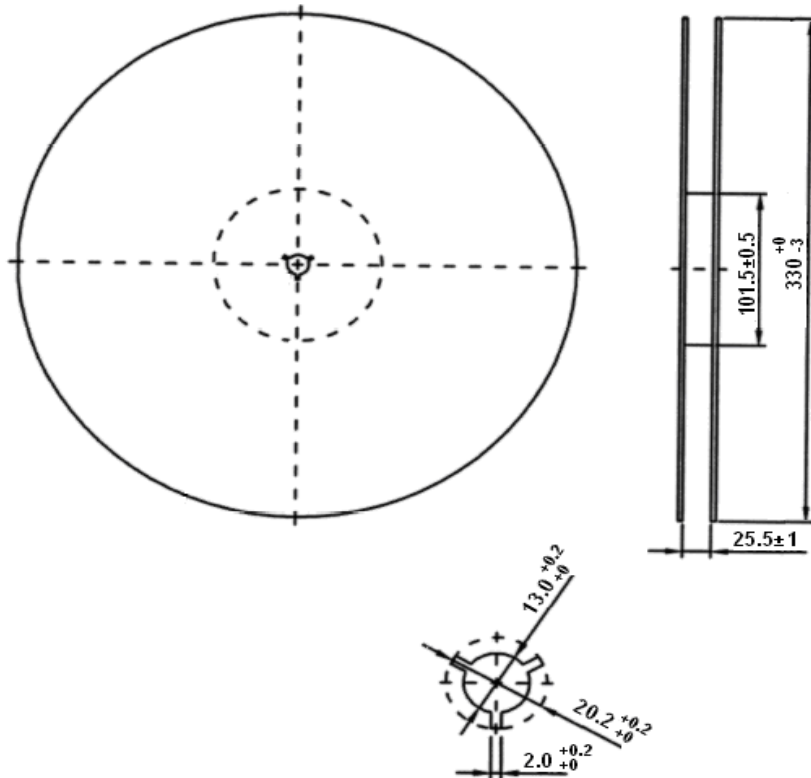
F. PCB FOOTPRINT



 : Land Pattern
Unit: mm

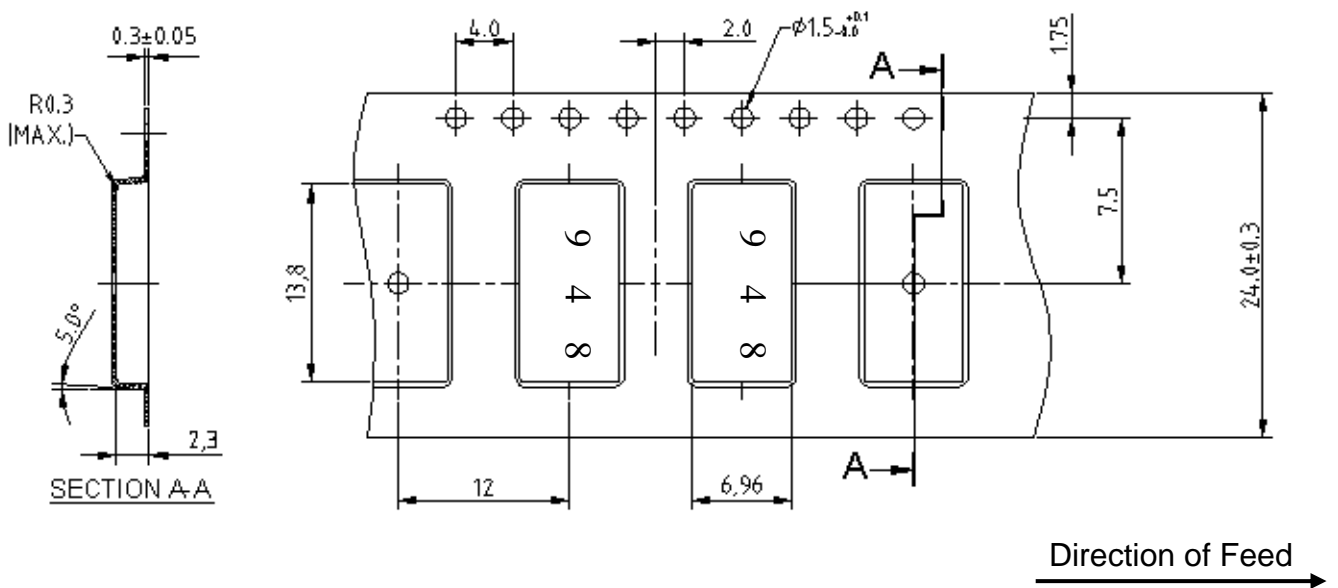
G. PACKAGE:

1. REEL DIMENSION (Please refer to FR-75D10 for packing quantity)



Unit: mm

2. TAPE DIMENSION



H. RECOMMENDED REFLOW PROFILE :

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C+0/-5°C peak (20~40sec).
4. Time: 2 times.

